

### Calculus Warm Up #4-4

The rate at which people enter an auditorium for a rock concert is modeled by the function  $R$ ,

$$R(t) = 1380t^2 - 675t^3, \text{ for } 0 \leq t \leq 2 \text{ hours.}$$

$R(t)$  is measured in people per hour.

No one is in the auditorium at time  $t = 0$ . Doors close and concert begins at time  $t = 2$ .

- How many people are in the auditorium when the concert begins?
- Find the time when the rate at which people enter the auditorium is a maximum. Justify your answer.

### Yesterday's Classwork:

2002 FR - B, # 6

(Blue)

a) 5 km

b)  $-6 \text{ km/hr.}$

c)  $\frac{17}{5} \text{ radians/hr.}$

## Today's classwork

### BC MC - A Practice test

No calculator

Things we still need to learn:

# 7, 10, ~~13~~, 17, 26

↑  
derivatives  
of parametric  
eq.

HW:

Look over 10.1 - 10.4 assignments  
for tomorrow's group quiz.

Work on the MC Practice Test.